

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

B
1 Claim 1. (Previously Presented) A process for controlling a transfer voltage in an image
2 forming apparatus, the image forming apparatus comprising an electrification roller electrifying a
3 surface of a photosensitive drum, a laser scanning unit forming an electrostatic latent image on the
4 surface of the photosensitive drum, a developing machine making the electrostatic latent image
5 visible, a transfer roller transferring the image to a recording paper and a fixer fixing the image
6 transferred to the recording paper, the process comprising the steps of:

7 storing within a memory image data to be printed when a print demand is received;

8 detecting the kind of paper selected by a user;

9 editing by reducing the number of pixels of the image data at a certain rate when the detected
10 paper is thick; and

11 transmitting the edited image data to the laser scanning unit and performing the printing work
12 for the edited image data.

1 Claim 2. (Previously Presented) The process according to claim 1, wherein the editing step
2 is performed using economy mode in which the pixels of the light scanned are equally split into an
3 integer number of pixels in order to represent one pixel of the image data, and only a certain number

4 of pixels among the equally split pixels of the light are scanned.

1 Claim 3. (Previously Presented) The process according to claim 1, wherein the editing step
2 is performed using resolution enhancement technology mode in which the print area is split into a
3 plurality of small areas, and some pixels among the total pixels for each resolution included in the
4 respective small areas are removed.

1 Claim 4. (Previously Presented) A process for controlling a transfer voltage in an image
2 forming apparatus, the image forming apparatus comprising a electrification roller electrifying a
3 surface of a photosensitive drum, a laser scanning unit forming an electrostatic latent image on the
4 surface of the photosensitive drum, a developing machine making the electrostatic latent image
5 visible, a transfer roller transferring the image to a recording paper and a fixer fixing the image
6 transferred to the recording paper, the process comprising the steps of:

7 storing at a memory image data to be printed when a print demand is received;

8 detecting the kind of paper selected by a user;

9 transmitting the image data to the laser scanning unit when the detected paper is a thick; and

10 decreasing the amount of the light emitted from the laser scanning unit at a predetermined
11 rate and performing the printing work.

1 Claim 5. (Previously Presented) A process for controlling a transfer voltage in an image
2 forming apparatus, the image forming apparatus comprising a electrification roller electrifying a

3 surface of a photosensitive drum, a laser scanning unit forming an electrostatic latent image on the
4 surface of the photosensitive drum, a developing machine making the electrostatic latent image
5 visible, a transfer roller transferring the image to a recording paper and a fixer fixing the image
6 transferred to the recording paper, the process comprising the steps of:

7 storing image data to be printed at a memory when a print demand is received;

8 detecting the kind of paper selected by a user;

9 transmitting the image data to the laser scanning unit when the detected paper is a thick; and

10 increasing a developing voltage applied to the developing machine to a predetermined
11 voltage level and then performing the printing work.

1 Claim 6. (Previously Presented) A process according to claim 5, wherein the predetermined
2 voltage level is equal to or less than -250 volts.


1 Claim 7. (Previously Presented) A process in an image forming apparatus, comprising:
2 storing within a memory image data to be printed on a printable medium by said
3 image forming apparatus;
4 making a determination of whether a grade of the printable medium selected by a user
5 of said image forming apparatus has a first thickness or has a second and greater thickness;
6 electrifying a surface of a photosensitive drum;
7 when said determination establishes that the printable medium selected has said
8 second and greater thickness, editing said image data by reducing to a reduced number of pixels, a

9 quantity of pixels representing said image data, and driving a laser scanning unit to form an
10 electrostatic latent image on said surface of said photosensitive drum in correspondence with said
11 reduced number of pixels;

12 driving a developer to convert said electrostatic latent image into a visible image;

13 driving a transfer roller to transfer said visible image to the printable medium
14 selected; and

15 fixing said visible image transferred to the printable medium selected.

 Claim 8. (Previously Presented) The process according to claim 7, further comprised of:

2 generating said edited data by equally dividing said quantity of pixels into an integer
3 number of pixels with each said integer number of pixels representing a different pixel of said image
4 data; and

5 scanning onto said surface of said photosensitive drum only a certain number of
6 pixels among each said integer number of pixels.

1 Claim 9. (Previously Presented) The process according to claim 7, further comprised of
2 editing said image data by:

3 dividing said print area into a plurality of smaller areas each exhibiting a
4 corresponding resolution and each represented by a different group of said quantity of pixels; and

5 removing some of said pixels from within each said group.

1 Claim 10. (Previously Presented) The process according to claim 9, further comprising of
2 when said determination establishes that the printable medium selected has said first thickness,
3 performing a normal printing work without editing said image data by not reducing the number of
4 pixels, the quantity of pixels representing said image data.

1 Claim 11. (Previously Presented) A process in an image forming apparatus, comprising:
2 storing within a memory image data to be printed on a printable medium by said
3 image forming apparatus;
4 making a determination of whether a grade of the printable medium selected by a user
5 of said image forming apparatus has a first thickness or has a second and greater thickness;
6 electrifying a surface of a photosensitive drum;
7 when said determination establishes that the printable medium selected has said
8 second and greater thickness, transmitting said image data to a laser scanning unit and forming an
9 electrostatic latent image on said surface of said photosensitive drum after decreasing an amount of
10 light emitted by said laser scanning unit at a predetermined rate;
11 driving a developer to convert said electrostatic latent image into a visible image;
12 driving a transfer roller to transfer said visible image to the printable medium
13 selected; and
14 fixing said visible image transferred to the printable medium selected.

1 Claim 12. (Previously Presented) The process according to claim 11, further comprising of

2 lowering an engagement force of a toner coated onto the photosensitive surface of said
3 photosensitive drum.

1 Claim 13. (Previously Presented) A process for controlling transfer voltage in an image
2 forming apparatus, comprising:

3 storing within a memory image data to be printed on a printable medium by said
4 image forming apparatus;

5 making a determination of whether a grade of the printable medium selected by a user
6 of said image forming apparatus has a first thickness or has a second and greater thickness;

7 electrifying a surface of a photosensitive drum;

8 transmitting said image data to a laser scanning unit and forming an electrostatic
9 latent image on said surface of said photosensitive drum;

10 driving a developer to convert said electrostatic latent image into a visible image by
11 applying a first developing voltage to a developing roller when said determination indicates that the
12 printable medium selected has said first thickness, and by applying a second developing voltage
13 exhibiting a greater magnitude than said first voltage to said developing roller when said
14 determination indicates that the printable medium selected has said second and greater thickness;

15 driving a transfer roller to transfer said visible image to the printable medium
16 selected; and

17 fixing said visible image transferred to the printable medium selected.

1 Claim 14. (Previously Presented) A process according to claim 13, further comprised of said
2 second developing voltage being equal to or less than -250 volts.

1 Claim 15. (Previously Presented) An image forming apparatus, comprising:
2 a memory storing image data to be printed on a printable medium by said image forming
3 apparatus;
4 a photosensitive drum bearing an exterior circumferential surface, positioned along a path
5 of conveyance of a printable medium selected by a user through said image forming apparatus;
6 an electrification roller positioned to electrify said surface of said photosensitive drum;
7 a controller responding to passage of a printable medium along said path by making a
8 determination of whether a grade of the printable medium selected by a user of said image forming
9 apparatus has a first thickness or has a second and greater thickness, when said determination
10 establishes that the printable medium selected has said second and greater thickness, editing said
11 image data by reducing to a reduced number of pixels, a quantity of pixels representing said image
12 data, and driving a laser scanning unit to form an electrostatic latent image on said surface of said
13 photosensitive drum in correspondence with said reduced number of pixels;
14 a laser scanning unit forming an electrostatic latent image on said surface of said
15 photosensitive drum in accordance with output data received from said controller;
16 a developer disposed to convert said electrostatic latent image into a visible image;
17 a transfer roller disposed along said path opposite from said photosensitive drum, driven to
18 transfer said visible image to the printable medium selected; and

19 a fixing unit positioned along said path to fix said visible image transferred to the printable
20 medium selected.

1 Claim 16. (Previously Presented) The apparatus according to claim 15, further comprised
2 of said controller editing said image data by generating said edited data by equally dividing said
3 quantity of pixels into an integer number of pixels with each said integer number of pixels
4 representing a different pixel of said image data, and scanning onto said surface of said
5 photosensitive drum only a certain number of pixels among each said integer number of pixels.

1 Claim 17. (Previously Presented) The apparatus according to claim 15, further comprised
2 of said controller editing said image data by dividing said print area into a plurality of smaller areas
3 each exhibiting a corresponding resolution and each represented by a different group of said quantity
4 of pixels, and removing some of said pixels from within each said group.

1 Claim 18. (New) The process according to claim 5, with the increasing of the developing
2 voltage level being applied to a developing roller in accordance with the kind of paper being
3 detected.